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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/707,599	11/07/2000	Takafumi Terasawa	13700-	9669

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EXAMINER

ORTIZ RODRIGUEZ, CARLOS R

ART UNIT PAPER NUMBER

2125

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/707,599	<b>Applicant(s)</b> TERASAWA, TAKAFUMI	
	<b>Examiner</b> Carlos Ortiz-Rodriguez	<b>Art Unit</b> 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 and 11 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 5 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 5 and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4, 7-10 and 12-14 are rejected under 35 U.S.C. 112, second paragraph.

Claim 1 recites the term "the information unit scalars" in line 6 and the term "the other pattern information pieces" in line 9. There is insufficient antecedent basis for these terms in the claim. Claim 1 additionally recites the term "a set of information units" in line 10. This term renders the claim indefinite because it is ambiguous whether the "set of information units" are the same set of information units mentioned in the preamble of the claim.

Claim 2 recites the term "the other stored patterns" and the term "the cell scalars". There is insufficient antecedent basis for these terms in the claim.

Claim 3 recites the term "the created cell scalars". There is insufficient antecedent basis for these terms in the claim. Claim 3 additionally recites the term "a set of cells". This term

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renders the claim indefinite because it is ambiguous whether the “set of cells” are the same set of cells mentioned in line 8 of claim 2.

Claim 4 recites the term “the other calculated activity levels”. There is insufficient antecedent basis for this term in the claim.

Claim 7 recites the term “an input pattern”. This term renders the claim indefinite because it is ambiguous whether the “input pattern” is the same input pattern mentioned in claim 6.

Claim 8 recites the term “the shifted patterns”. There is insufficient antecedent basis for this term in the claim.

Claim 9 recites the terms “the frequency” and “the intervals” and “the state”. There is insufficient antecedent basis for these terms in the claim.

Claim 10 recites the term “the other calculated activity levels”. There is insufficient antecedent basis for this term in the claim.

Claim 12 recites the term “the other pattern information pieces”. There is insufficient antecedent basis for this term in the claim.

Claim 13 recites the term “the created cell sets” and “the stored patterns”. There is insufficient antecedent basis for these terms in the claim.

Claim 14 recites the term “the other patterns”. There is insufficient antecedent basis for this term in the claim.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Regarding claims 6-9 rejected under 35 U.S.C. 102(b) as being anticipated by Edelman et al. U.S Patent No. 5,136,687.

Regarding claims 6-9, Edelman et al. discloses a method of generating patterns from input information, comprising the steps of: entering an input pattern into a network of elements arranged at predetermined intervals, each of the elements directing an input impulse toward a next element, and thereafter, rejecting to direct input impulses toward the next element until predetermined conditions are met (C5 L1-30).

and generating a response rule corresponding to the input pattern according to routes formed by the elements in response to the input pattern (C40 L52-68 and C41 L1-15).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole

would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edelman et al. U.S Patent No. 5,136,687 in view of Ravi Chandran U.S. Patent No. 5,038,390.

Regarding claims 1-4, 10 and 12-14 Edelman et al. discloses a method of analyzing pattern information pieces each being a set of information units, each of the information units and pattern information pieces having a scalar representing a specific characteristic as an attribute, the method comprising the steps of: calculating an activity level of each of the pattern information pieces according to the information unit scalars of the pattern information pieces (C5 L1-30 and C18 L17-32);

repressing a predetermined number of times the calculated activity level of each pattern information piece according to repression rules that are determined in consideration of the other pattern information pieces (C40 L52-68 and C41 L1-15);

and generating a set of information units each having a new scalar and a scalar representing the set of information units, according to the information unit scalars and repressed activity levels of the pattern information pieces (C5 L1-30).

But, Edelman et al. fails to clearly specify the steps for calculating an activity level.

However Edelman in combination with Ravi Chandran discloses the steps for calculating an activity level (Ravi Chandran Col 3 L6-22)

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Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Edelman and combining it with the invention disclosed by Ravi Chandran. The results of this combination would lead to method and apparatus for analyzing input information and method of creating pattern for input information.

One of ordinary skill in the art would have been motivated to do this modification calculating activity level of pieces of information is known in the art as disclosed by Ravi Chandran.

#### *Citation of Pertinent Prior Art*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to method and apparatus for analyzing input information and method of creating pattern for input information:

- a. U.S. Pat. No. 5,063,608 to Siegel, which discloses adaptive zonal coder.
- b. U.S. Pat. No. 5,136,687 to Edelman et al., which discloses categorization automata employing neuronal group selection with reentry.
- c. U.S. Pat. No. 5,349,541 to Alexandro, Jr. et al. which discloses method and apparatus utilizing neural networks to predict a specified signal value within a multi-element system.

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d. U.S. Pat. No. 5,530,886 to Kojima et al., which discloses object recognition apparatus using a hierarchical network of recognition units.

e. U.S. Pat. No. 5,568,571 to Willis et al., which discloses image enhancement system.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Ortiz-Rodriguez whose telephone number is (571) 272-3747. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The central official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on (703)308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



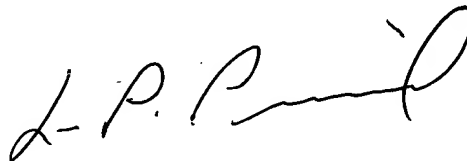
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Carlos Ortiz-Rodriguez  
Patent Examiner  
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cror

January 6, 2005



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